

Revision Test S1A

1a) $0 - [12 + (-3)]$

$= 0 - (12 - 3)$

$= 0 - (9)$

$= 0 - 9$

$= \underline{-9}$

1b) $(-12) \div (+\frac{3}{7}) \times (-\frac{1}{4})$

$= + (12 \times \frac{3}{7} \times \frac{1}{4})$

$= \underline{+9}$

2a) $x=2, y=3, z=5$

$4x - 2y$

$= 4 \times 2 - 2 \times 3$

$= 8 - 6$

$= \underline{+2}$

2b) $(7x+6y)(4y-5z)$

$= (7 \times 2 + 6 \times 3)(4 \times 3 - 5 \times 5)$

$= (14 + 18)(12 - 25)$

$= 32 \times (-13)$

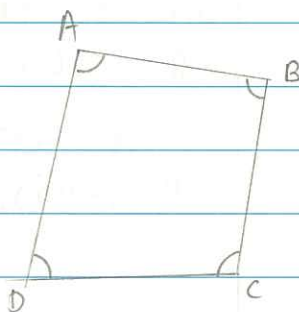
$= \underline{-416}$

3. $\angle A = 94^\circ / 95^\circ$

$\angle B = 90^\circ$

$\angle C = 100^\circ$

$\angle D = 76^\circ / 75^\circ$



$\therefore \underline{\angle D < \angle B < \angle A < \angle C}$

$\propto \underline{D < B < A < C}$

6a) $(-8) - (+12) - (-11) - (+7) - (-6)$

$= -8 - (-132) - (-42)$

$= -8 + 132 + 42$

$= \underline{+166}$

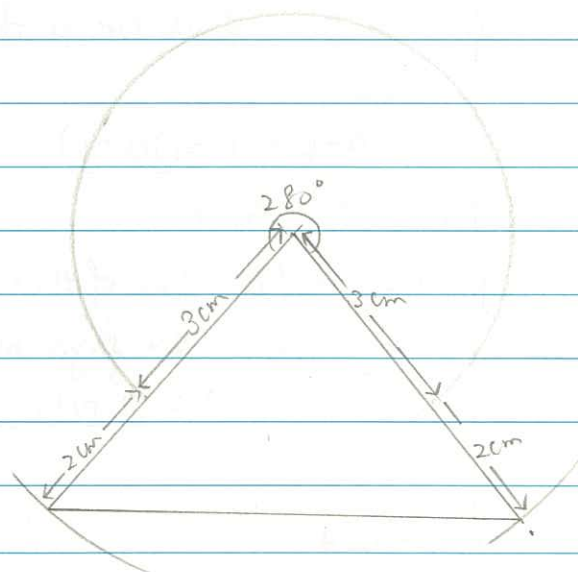
6b) $[(-19) - (-3)] \div (-\frac{4}{5}) - 10$

$= (-19 + 3) \div (-\frac{4}{5}) - 10$

$= (-16) \times (-\frac{5}{4}) - 10$

$= +20 - 10$

$= \underline{+10}$



8a) The third floor (3/F) = +3

The basement B3 = -3

b) $5 - (+7) = -2$

M. Kwok park & less

Car in basement 2/B2

c) $5 + (-3) = 2$

The food court is

located in 2/F

(the second floor)

+5 5/F Library

+4 4/F

+3 3/F Study Room

+2 2/F

+1 1/F

0 G/F Lobby

-1 B1 Carpark

-2 B2 Carpark

-3 B3 Carpark

9. The smaller number of two consecutive number is a ($a \neq 0$)

a) The larger number = $a+1$

b) The sum of the two numbers:
 $= (a+1) + a = \underline{2a+1}$

c) The product of the two numbers:
 $= (a+1)a$ or $a(a+1)$

d) The result of dividing the larger number by smaller number:
 $= \frac{a+1}{a}$ or $1 + \frac{1}{a}$

e) The square of the sum of the two numbers:

$$= (a+(a+1))^2 = \underline{(2a+1)^2}$$

or $\underline{2a^2 + 4a + 1}$

f) The sum of the square of the smaller number and the larger number.

$$= a^2 + (a+1) = \underline{a^2 + a + 1}$$

12a) $T_1 = 4 \times 1 + 7$

$$T_2 = 4 \times 2 + 7$$

$$T_3 = 4 \times 3 + 7$$

$$T_4 = 4 \times 4 + 7$$

$$T_n = 4 \times n + 7 = \underline{4n + 7}$$

b) $T_n = 283$

$$4n + 7 = 283$$

$$4n = 276$$

$$n = \underline{69}$$

13. a square number = sum of consecutive odd no.

e.g. $25 = 1+3+5+7+9 = 5^2$ (T_5)

a) $49 = 1+3+5+7+9+11+13 = 7^2$ (T_7)

$64 = 1+3+5+7+9+11+13+15 = 8^2$ (T_8)

b)(i) The sum of the first 10 ($\because T_{10} = 10^2$) consecutive nos $= 10^2 = \underline{100}$

(ii) There are 15 consecutive nos from $1+3+5+\dots+29$

\therefore The sum is $T_{15} = 15^2$

$1+3+5+\dots+29 = \underline{225}$

20) D

$$x = \frac{4b^2}{(2a)^2} \cdot \frac{a^2}{b} \quad (a=12, b=16)$$

$$x = \frac{4 \times 16^2}{(2 \times 12)^2} \cdot \frac{12^2}{16}$$

$$x = \frac{4 \times 16 \times 16}{2 \times 12 \times 2 \times 12} \times \frac{12 \times 12}{16}$$

$$\underline{x = 16}$$

22) D

A. $(-714) + (+714) = 0$

B. $(-960) - (-833) = -960 + 833 = -ve$

C. $(-697) - (+917) = -697 - 917 = -ve$

D. $(-762) - (951) = -762 - 951 = -ve$

23. [B]

Let the middle number be x .the three numbers are $x-1$, x , $x+1$

$$3(x+1) + 2(x-1) = 81$$

$$3x + 3 + 2x - 2 = 81$$

$$5x + 1 = 81$$

$$5x = 80$$

$$x = 16$$

28. [A]

$$(3x-2)-3 = 2x+3$$

$$3x-2-3 = 2x+3$$

24. [C]

Let Cathy's weight be x kg. two weeks agoLast week = $(x-3)$ kgThis week = $(x-3+1)$ kg

$$= (x-2) \text{ kg}$$

 \therefore Cathy's weight change is -2 kg

25. [C]

between 10 and 50 the square numbers

are $= 16, 25, 36, 49$

There are 4 square numbers.

26. [C]

I. \times ABC ^{not} is an acute-angled triangle (\because not all angles are acute)II. \checkmark ABC is an obtuse-angled triangle

$$\therefore \angle A > 90^\circ$$

III. \checkmark ABC is an isosceles triangle

$$\therefore AB = AC$$

IV. \times ABC ^{not} is an equilateral triangle(\because not all three sides are equal)